BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 1500000.00

Name of Work: Detailed Estimate for the work of Construction of RO plant at BBMP helppoint in ward No-04.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	A) CIVIL WORK								
1	KSRB 2-1 1 Earth work in surface excavation in hard soil for leveling and lowering the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe line and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1 5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications, Specification No KBS 2 1(a) / 2 3 1,P No 5/ Item No 2 2/ PWD SR 2016-17	cum							
	levelling and lowering		1	5 00	5 00	0 30	7 50		
							7.50	239.76	1798.00
	Basic Rate	222 00							
	Area Weightage 8%	17 76							
	Grand Total	239 76							
2	KSRB 2-2 2 Earth work excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1 5m and above in width, in hard soil not exceeding 1 5m , in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m specification, specification No KBS 2 1(b) / 2 3 5 No 5/ Item No 2 4/ PWD SR 2016-17	cum							
	for RO plant ssm		2	5 10	0 90	1 00	9 18		
			2	2 80	0 90	1 00	5 04		
	RWT		2	3 20	0 75	0 60	2 88		
			2	1 70	0 75	0 60	1 53		
							18.63	305.64	5694.00
	Basic Rate	283 00							
	Area Weightage 8%	22 64							
	Grand Total	305 64							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
3	KSRB 100-1 Loading and unloading ofstone aggregates / sand/ kanker/ Moorum /soil KSRRB M100-1 Placing tipper at loading with front end loader dumpting turning for return trip excluding time for haulged and return trip complete as per specification item No 17 1 page 130 and KSRB M.100.4 1 costof haulage excluding loading and unloading MORTH to a distance of 4 00 K.M (Item No 17 4 Page 134 (SR 2016-17)	cum							
				Vide Item No. 1+2			26.13	87.26	2280.00
	Basic Rate for loading and unloading	68 00							
	Basic Rate for Haulage upto 4 00 k m =1 28 X 2 50 X 4	12 80							
		80.80							
	Basic Rate	80 80							
	Area Weightage 8%	6 46							
	Grand Total	87 26							
4	KSRB-4-1 3 Providing and laying in position plain cement concrete of mix 1 4 8 withOPC cement at 180kgs, with 40mm and down size graded granite metal coarse aggregates @0 892cum and fine aggregates @0 57cum machine mixed concrete laid in layers not, exceeding 15cms, thick, well compacted in foundation and plinth, including cost of all materials labour, HOM of machinery curing complete as per specifications Specification No KBS 4 1 4 2, No 12/ Item No 4 3/ PWD SR 2016-17	Cum							
	for RO plant ssm		2	5 10	0 90	0 15	1 38		
			2	2 80	0 90	0 15	0 76		
	RWT		2	3 20	0 75	0 15	0 72		
			2	1 70	0 75	0 15	0 38		
			1	2 00	2 00	0 15	0 60		
	inside		1	4 00	3 50	0 15	2 10		
			1	6 00	2 00	0 15	1 80		
							7.74	5256.36	40661.00
	Basic Rate	4867 00							
	Area Weightage 8%	389 36							
	Grand Total	5256 36							

No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
5	KSRB 2 3 Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms, in depth, compacting each deposited layers by ramming after watering with lead upto 50m, and lift upto 1 5m, including cost of all labour complete as per specifications, specification No KBS 2 9, No. 6/ Item No 2 10/ PWD SR 2016-17	Cum							
	"		1	4 00	3 50	0 45	6 30		
			1	2 00	2 00	0 45	1 80		
	Basic Rate	127 00					8 10	137 16	1111 00
	Area Weightage 8%	10 16							
	Grand Total	137 16							
6	KSRB 5 2 3 Providing and constructing granite / trap / basalt rubble stone masonry in foundation with cement mortar 1 6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m apart in each course including cost of materials, labour, curing complete as per specifications KBS 5 1 13 Page No 23/ Item No 5 6/ PWD SR 2016-17	Cum							
			2	4 95	0 75	0 40	2 97		
			2	2 95	0 75	0 40	1 77		
			2	4 80	0 60	0 60	3 46		
	"		2	3 10	0 60	0 60	2 23		
	rwt		2	3 10	0 60	0 40	1 49		
			2	1 85	0 60	0 40	0 89		
	Basic Rate	4187 00					12 80	4521 96	57899 00
	Area Weightage 8%	334 96							
	Grand Total	4521 96							
7	KSRB 5 3 3 Providing and constructing granite/trap/basalt size stone masonry in basement with cement mortar 1 6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m apart in each course including cost of materials, labour, curing complete as per specifications KBS 5-1 13 Page No 26/ Item No 5 9/ PWD SR 2016-17	Cum							
			2	4 65	0 45	0 40	1 67		
	"		2	3 25	0 45	0 40	1 17		
	rwt		2	2 90	0 45	0 40	1 04		
			2	2 00	0 45	0 40	0 72		
	Basic Rate	5005 00					4 61	5405 40	24908 00
	Area Weightage 8%	400 40							
	Grand Total	5405 40							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
8	Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20 mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications Page No. 112/ Item No 15 1 PWD SR 2016-17	sqm							
			2	4.65		0.400	3.72		
			2	3.25		0.400	2.60		
			2	2.90		0.400	2.32		
			2	2.00		0.400	1.60		
	Basic Rate	97.00					10.24	104.76	1073.00
	Area Weightage 8%	7.76							
	Grand Total	104.76							
9	KSRB 4.2.2 Providing and laying in position plain cement concrete of mix M20 withOPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.878cum and fine aggregates @0.459cum with superplastesisre @ 3lts conforming to IS9103-1999Reffirmed 2008 machine mixed exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, return walls, walls(any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc, including cost of all materials, labour HOM of machinery, curing, complete as per specifications Specification No. KBS 4.1,4.6, No. KBS 4.1,4.6, No. 13/ Item No 4.11/ PWD SR 2016-17	Cum							
	for coping		2	4.65	0.45	0.15	0.63		
			2	3.25	0.45	0.15	0.44		
			2	2.90	0.45	0.15	0.39		
			2	2.00	0.45	0.15	0.27		
	rwt		1	2.00	2.00	0.15	0.60		
	inside		1	4.00	3.50	0.150	2.10		
	for chajja		1	4.40	0.60	0.075	0.20		
			2	0.75	0.60	0.075	0.07		
	for lintel		2	4.40	0.20	0.150	0.26		
			2	3.50	0.20	0.150	0.21		
							5.17	6491.88	33547.00
	Basic Rate	6011.00							
	Area Weightage 8%	480.88							
	Grand Total	6491.88							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
10	KSRB 4-6 10 Providing and removing centering, shuttering, strutting, propping etc., for chajjas, corbels etc. including edges including cost of all materials, labour complete as per specifications Specification NO KBS 4 6 2 Page No 16/ Item No 4 37/ PWD SR 2016-17	sqm							
	chajja		1	4.40		0.600	2.64		
			2	0.75		0.600	0.90		
	lintel	2x2	4	4.40		0.200	3.52		
		2x2	4	3.50		0.200	2.80		
							9.86	291.60	2875.00
	Basic Rate	270.00							
	Area Weightage 8%	21.60							
	Grand Total	291.60							
11	KSRB 5-14 Providing and constructing precast concrete solid blocks with compressive strength not les than 35 Kg/sqm with cement mortar 1 4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x20x20 cms conforming to I.S. 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications Page No. 25/ Item No. 5 27/ PWD SR 2016-17	sqm							
			2	4.40		3.00	26.40		
			2	3.50		3.00	21.00		
	parapet		1	4.40		0.40	1.76		
			2	3.70		0.40	2.96		
							52.12		
	deduction Ventilator		2	0.75		0.60	0.90		
			1	2.50		3.00	7.50		
							8.40		
							43.72	1011.96	44243.00
	Basic Rate	937.00							
	Area Weightage 8%	74.96							
	Grand Total	1011.96							
12	KSRB 4 9 2 providing T M T steel reinforcement for R C C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications Specification No KBS 4 6 3 Page No 17/ Item No 4 46/ PWD SR 2016-17	Quintal							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	90kg/cum		0.900	4.27			3.84		
	Basic Rate	5605.00					3.84	6053.40	23263.00
	Area Weightage 8%	448.40							
	Grand Total	6053.40							
13	KSRB 15.3.1 Providing 12mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever reuired smooth rendering. Providing and removing scaffolding, including cost of materials, labour. Curing complete as per specifications. Page No 122/ Item No. 15.11/ PWD SR 2016-17	sqm							
	inside		2	3.50		3.00	21.00		
			2	4.00		3.00	24.00		
	out side		2	4.40		3.60	31.68		
			2	3.90		3.60	28.08		
							104.76		
	deduction Ventilator	2x2	4	0.75		0.60	1.80		
			2	4.40		0.60	5.28		
							7.08		
							97.68	**162.00**	**15824.00**
	Basic Rate	150.00							
	Area Weightage 8%	12.00							
	Grand Total	162.00							
14	FIXTURES for doors and windows Page No XIV SR 2016-17								
	VENTILATORS Sl No 395,385,402,386								
	Hinges 5" heavyduty	Each	1	4			4	37.00	148
	bottom lock nail	Each	2	5			10	47.00	470
	MS Clamps	Each	2	4			8	38.00	304
	Brass screws 25mm	Each	10	5			50	2.10	105
15	Providing and fixing single shutter glass door of 12mm thick plain Toughened glass (Saint Gobain,Modi float).The door is fixed by using any approved make hardware fitting like patch fitting, pivot, Floor machine, locking arrangements and suitable SS door rails with Floral glass etching for 1/3 portion of door area etc complete. The rate includes cost of all materials, labour, hire of tools & machineries, and as per specification. Page No 310/ Item No 39.5PWD / PWD SR 216-17	sqm	1	2.50		2.50	6.25		
							6.25	**12312.00**	**76950.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	11400 00							
	Area Weightage 8%	912 00							
	Grand Total	12312 00							
16	Providing and fixing Special make glazed Vitrified tiles (Granomite finis) of approved make, quality and colour of sized 6000x600x10mm thick fixed on existing flooring wit ha special roffe adhesive for flooring and skirting etc , complete including providing spears at required interval and removing stains etc , complete. Page No 104/ Item No 14.44 / PWD SR 2016-17	sqm							
			1	4 00		3 50	14 00		
	skirting		2	3 50		0 20	1 40		
			2	4 00		0 20	1 60		
			1	4 50		0 60	2 70		
			1	4 50		0 75	3 38		
			1	6 00		2 00	12 00		
							35 08	**1154.52**	**40495.00**
	Basic Rate	1069 00							
	Area Weightage 8%	85 52							
	Grand Total	1154 52							
17	KSRB 14 13 1 Providing precast chequered mosaic tiles dark shade using ordinary grey cement for steps and flooring, with precast 20mm thick, using marble chips of approved colour 7 to 10 nominal size laid in floors, steps and landings on a bed of 12mm thick cement mortar 1:6, mix, jointed with neat cement slurry mix with pigment to match the shade of tiles curing, rubbing, polishing , oxalic acid wash, wax polish, including cost of materials labour, HOM machinery complete as per specifications. Page No 112/ Item No 14 28 SR 2016-17	sqm							
			1	2 50	2 50		6 25		
							6.25	**1049.76**	**6561.00**
	Basic Rate	972 00							
	Area Weightage 8%	77 76							
	Grand Total	1049 76							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
18	KSRB 15-17.2 Applying priming coat over new wood surface and / or wood based surface after brushing with wood primer pink paint including preparing the surface after thoroughly cleaning oil, grease, dirt, and foreign matter, sand papering and knotting ready mix paint including cost of materials, labour, complete as per specifications Page No. 114/ Item No. 15.56 / PWD SR 2016-17	sqm							
	doors		1	3.00		2.50	7.50		
	window		2	0.60		0.60	0.72		
							8.22	38.88	320.00
	Basic Rate	36.00							
	Area Weightage 8%	2.88							
	Grand Total	38.88							
19	KSRB 15-17.6 Providing and applying painting two coats (excluding priming coat) on new wood surface and / or wood based surface with enamel paint to give an even shade, cleaning the surface of all dirt, dust and foreign matter, sand papering including cost of materials, labour, complete as per specifications Page No.118 / Item No. 15.60.1 / PWD SR 2016-17								
		qty same as item no					8.22		
							8.22	90.72	746.00
	Basic Rate	84.00							
	Area Weightage 8%	6.72							
	Grand Total	90.72							
20	KSRB 15.15.1 Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth cost of materials, labour, complete as per specifications with primer Page No.113/ Item No. 15.51.2 / PWD SR 2016-17	sqm							
		qty same as item no					8.22		
							8.22	97.20	799.00
	Basic Rate	90.00							
	Area Weightage 8%	7.20							
	Grand Total	97.20							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
21	KSRB 15-16 . Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to given an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour complete as per specifications with primer,page No 114 item No 15 53 2/PWD SR 2016-17								
	qty same as wall plastering						6 25		
							6.25	90.72	567.00
	Basic Rate	84 00							
	Area Weightage 8%	6 72							
	Grand Total	90 72							
22	PROVIDING TRAPEZOIDAL PROFILED SHEET Providing and installing of pre painted Galvolume iron Trpezoidal profiled sheet of approved make 1060mm width (1000mm cover width) 28-30 mm crest height with cest distance of 200 mm c/c with 2ribs at the center for stiffening . The total coated thickness (TCT) of the sheet will be 0 47 mm +/- 0 02 mm tolerance Zinc –Alu Alloy coating AZ 150 gsm as pe ASTM 1397/A755-550 mpa steel grade 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling /self tapping screws of 25mm length to be fixed over the existing purlins, rafters channel and trusses No 300/ Item No 38 30 PWD SR 2016-17	sqm							
	GI Sheet (0 5mm)		1	6 00	6 00		36 00		
			1	2 50	2 50		6 25		
							42.25	831 60	**35135.00**
	Basic Rate	770 00							
	Area Weightage 8%	61 60							
	Grand Total	831 60							
23	Steel Pre fabricates structure with a 14 Guage (3)" each 60 kg including cutting and transportation complete	kgs							
	M s Rectangular tubes 1 Length=35 00 kgs = 4 4x5 =22 /6 mtr per length = 4 length x 35 kgs		4	35 00			140 00		
	M s Rectangular tubes (purlines) 1 Length=35 00 kgs = 8x4 =32 /6 mtr per length = 6 length x 35 kgs		6	35 00			210 00		
	Angels truss = 6 Nos x 2 5 Mtrs x 25kg/ mtrs =375						375 00		
	MS Pipe 50mm dia 14 guage = 6 Nos x 50kg (2 pipe =50 kgs = 100kgs						100 00		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							825.00	95.00	78375.00
								A) TOTAL	496151.00
	B) Electrification,wiring and lighting etc to RO Plant								
1 P.No-5 I.No-23	Point wiring using Copper wire with switch. Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2X1.5Sq mm Cable confirming to the GTP without switch, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block complete for each outlet. GROUP A KPWD ELectrica SR for 2014-15								
	2.3.1) Short point upto 3Mtr from tapping point to out let via switch box KPWD ELectrica SR for 2014-15	Point	3				3.00	144.00	432.00
	2.3.2) Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch box KPWD ELectrica SR for 2014-15	Point	3				3.00	215.00	645.00
	2.3.3) Long point above 6Mtr upto 10Mtr from tapping point to out let via switch box KPWD ELectrica SR for 2014-15	Point	3				3.00	334.00	1002.00
2 P.No-02 I.No-1.1	open conduit system Supplying heavy gauge PVC conduit pipe .....dia .....mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.1.1.1) 19/20mm dia 2mm thick KPWD ELectrica SR for 2014-15	mtr	25				25.00	54.00	1350.00
3 P.No-6 I.No-2.5	Wiring for lighting power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694 1990 & confirming to GTP of GROUP -A. 2.5.2) 1.5 sqmm. KPWD ELectrica SR for 2014-15	Mtr	45				45.00	18.60	837.00
	2.5.1) 1 sqmm	Mtr	45				45.00	13.00	585.00
	2.5.3) 2.5 sqmm	Mtr	45				45.00	29.20	1314.00
	2.5.4) 4 sqmm	Mtr	45				45.00	42.10	1894.50
4 P.No-3 I.No-1.6	Supplying and flush mounting teak wooden box without front plank, made of not less than 12mm thick wood, after due groove cutting, Finishing with necessary cement plastering complete	Each	5				5.00	87.00	435.00
	1.6.3) 10"x7"x3" (254x178x76mm)	Each	4				4.00	73.00	292.00
	1.6.4) 8"x6"x3" (203x152x76mm)	Each	4				4.00	116.00	464.00
	1.6.1) 12"x12"x3" (300x300x76mm)								

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
5 P No 17 I No-3.9	Supplying 4mm thick plastic sheet with necessary nitches for fixing switches, regulators etc , and fixing on existing wooden or metal box using N.F. screws. KPWD ELectrica SR for 2014-15	Sqcm	1300				1300 00	0 25	325.00
6 P No-18 I No-3.8	Supplying and fixing/replacing of 6/16/32Amps electrical accessories on existing switch board. GROUP A KPWD ELectrica SR for 2014-15								
	3 15 1) 6Amps SP Switch	nos	3				3 00	35 00	105.00
	3 15 3) 6Amps 3 way 5 pin Socket	nos	3				3 00	53 00	159.00
	3 15 6) 6 Amps lamp holder	nos	10				10 00	48 00	480.00
	3 15 13) 16/6 Amps combined plug and socket with control switch	nos	10				10 00	268 00	2680.00
7 P No 18 I No-3.7	Supplying and fixing of modular switch/ Socket stepped electronic fan regulator/ dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293 GROUP B 3 7 18) 1000-1200Watts Dimmer KPWD ELectrica SR for 2014-15	Each	4				4 00	447 00	1788.00
8 P No 54 I No-6.2	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898 6 16 1) 5-32Amps SP KPWD ELectrica SR for 2014-15	Each	4				4 00	418 00	1672.00
9 P No 55 I No-7.1	Supplying, fixing, wiring, earth electrode for grounding conduits, I C. cutouts and other equipment's on the meter board using 40mm dia 2 90mm thick GI pipe 2 5 mtr long buried in a pit. The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7 3 3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia KPWD ELectrica SR for 2014-15	No	4				4 00	2727 00	10908.00
10 P No 44 I No-6.7	Supplying & fixing of Porcelain fuse channel with out out on existing wooden/panel using necessary nuts, bolts and washers 6 7 1) 16Amps	Each	4				4 00	120 00	480.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
11 16/3	Supply patty type fluorescent tube light fitting of 4'-36/40 watts fluorescent tube fitting, made out of M S sheet and stove enamelled with low loss open construction copper wound ferromagnetic ballast, starter, locking type brass contact holders mounted on double fold type sheet base fully wired for use on230 Volts A C Supply including 1No 4'-36/40 Watts fluorescent tube c) Group 'C' KPWD ELectrica SR for 2014-15	Each	10				10 00	340 00	3400.00
12 P No 114 (No> 17 7	Fixing all types and all capacities of fluorescent / false ceiling / spot light / CFL / LED fittings indoor on the wall / ceiling / rafters / girders using 23/0 0076" twin twisted PVC insulated wires, required Nos of round blocks and clamps 17 7 1) On wall / ceiling / Rafter / Girders KPWD ELectrica SR for 2014-15	Each	10				10 00	98 00	980.00
13 85 1	SHORT POLES (whereas clearance between Messenger wire and ground is inadequate) a) Supplying and fixing 40mm dia at 2 90 thick GI pipe 1 8m long complete with atleast 2 GI pipe 1.8m, long complete With atleast 2 Nos of through bolts 12 mm dia with MS back plate 100x100x6mm dia with eye bolt fixed at top deadeninding messenger wire with masonary patch work etc complete as per approved drawing (for single phase installations) KPWD ELectrica SR for 2014-15	Each	5				5 00	525 00	2625.00
14 85 5	INSULATED CABLE ON MESSENGER WIRE Using 2 single core wires for a single phase and 4 single core wires for 3 phase Supplying and stringing PVC insulated and PVC sheathed 650/1100V class aluminium conductor of size supported by 3 15mm (10 SWG) GI messenger wire with two break insulators one at each end of the span with suspenders at intervals of 0 75m. Each suspender shall be of porcelain reel insulator of suitable core through which insulated wire passes(single core or twin core as the case may be) and this reel insulator shall be fixed to the messenger wire using 2mm (No 14SWG) GI wire suitably bent and twisted. Separate reely insulator shall be provided for each wire, the messenger wire shall be ded-ended on the clamp provided to the departmental pole wide item No 4 above (Page No 56 Item No 5 a)Single Phase using 2 Wire e) 16 Sqmm KPWD ELectrica SR for 2014-15	R mtr	80				80 00	85 00	6800.00
									15000.00
	BESCOM DEPOSIT CHARGE						B) TOTAL		56653.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	C) 10000LPD R. O Plant Quotation								
	RAW WATER PUMP :								
	Quantity	1 No.							
	Type	Centrifugal mono block							
	MOC & Make	UKL							
	Motor Rating	0.75 HP							
	PRESSURE SAND FILTER :								
	Quantity	1 No							
	Capacity	1000 LPH							
	MOC & Make of housing	UKL							
	MOC & Make of cartridge	UKL							
	Capacity	1000 LPH							
	MOC & Make of vessel	UKL							
	Diameter	400 mm							
	Type of Valve	Single - multiport							
	Media	Support bed + sand							
	MICRON CARTRIDGE FILTER :								
	Quantity	1 set							
	Filter Rating	5 microns							
	Size	20" long							
	ANTISCALANT DOSING PUMPS :								
	Quantity	1 No							
	Type	Electro - magnetic							
	Capacity	1 5 LPH @ 4 Bar							
	Dosing Tank	HDPE - 50 ltr							
	HIGH PRESSURE PUMP :								
	Quantity	1 No ,							
	Capacity	1700 LPH							
	Type of Pump	Vertical Multistage Centrifugal Pump							
	MOC	SS 304							
	Motor Rating	2 HP, 3 Phase							
	Maximum Pressure	12 kg / cm2							
	Make	UKL							
	RESERVE OSMOSIS SYSTEM :								
	Quantity	1 No							
	Capacity	1000 LPH							
	Module Type								
	Membrane Specifications (Polyamide)								
	Make of Membrane	UKL							
	No. of Membranes								
	UV STERILISER								
	Max. Treatment Flow	1 m3/hr							
	No. of Lamps	1 No							
	Wattage	39W							
	Efficiency	99.99%							
	Material of construction	SS 304							
	PRODUCT WATER QUALITY :								

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Appearance	Crystal Clear							
	Abide by the ISO standards	Yes							
	S S Tank 304 grade with 16 gauge 2000 Liters capacity								
	304 grade 10 gauge SS Pipe{with steam valve} 25 ft								
	COIN BOOTH DISPENSING UNIT for 5 liters & 20ltrs separately								
	Raw Water Storage Tank	Function – For storage of raw water							
	Type/ MOC	Two/Three Layered PE tanks white / transparent in color made from virgin material of Food Grade Quality, suitable for the purpose of providing Storage drinking / potable water. 5000liters capacity							
	BBMP Approved Rate		1	946000.00			C) TOTAL		946000.00
							TOTAL A+B+C		1498804.00
							Sub Total		1498804.00
27	Miscellaneous charges								1196.00
								Total	1500000.00

(Rupees Fifteen lakhs Only)

CERTIFICATE

1. The work spot has been inspected and the work is found necessary
2. This estimate is prepared as per C S R of 2016-17
3. The provisions were made in this estimate are necessary and adequate
4. This works come under B B M P limits

Assistant Engineer

Assistant Executive Engineer
Yelahanka satellitetown Sub Division
Bangalore-64

Executive Engineer
Yelahanka Division
Bangalore-64

Technical Sanction
Accorded For 1500000/-
Head of A/C.....
CER NO CE/YNK/TS/..... Dt: 10-9-2018

Administrative Approval
Accorded For RS 15 lakhs only
Head of A/C.....
CER NO :.....324..... Dt: 03.03.18

TA CE (YNK)

TA CE (YNK)